SCHOOL PHYSICIANS' BULLETIN

Vol. II MARCH, 1932 No. 3

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Devoted to the interests and advancement of School Physicians and the services rendered by them.

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Vol. II MARCH, 1932 No. 3

Health Education and the School Physician *

JOHN SUNDWALL, Ph.D., M.D.

Professor of Hygiene and Public Health and Director of the Division of Hygiene and Public Health, University of Michigan

Correlation of Existing School Health Activities

One of the peculiarities of our human make-up is that when a new need for our schools or for society in general is realized and later promoted, we go about and establish a new agency to take care of and administer this need. Of course the proper thing to do would be to reconstruct and build up some existing agency which might well take care of this new project. As a result of this human tendency of ours, society and social institutions have become burdened with a multiplicity of welfare agencies which are continuously stepping on each other's toes and which duplicate each other's work to a large extent. Schools like society in general are burdened as a result of this tendency.

At any rate, the public schools of our land have had come down to them at least four movements or agencies, which claim to be primarily or deeply interested in the health of school children. First, *formal physical education* as conceived of and promoted by Jahn and Spiess in Germany and the Lings in Sweden, was introduced into the public schools of our country. We must realize that these systems of formal group exercises had their origin at a time when it was assumed that daily exercise was about the only thing that was necessary in order to build up and maintain a sound, vigorous and harmoniously developed body. This was before the sciences which make up modern medicine and hygiene, for the most part, were developed. The second movement was the breaking away from formal physical exercise and the establishment of what is now called *informal physical education*,—play, games, sports, and athletics. Of course, this informal physical exercise, especially athletics, has a potent instinctive and emotional pull on all of us. Moreover, we can indulge and gratify our innate urges for physical excellence, rivalry, emulation, competition and mastery just as effectively through represen-

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tation—identification, as we can by actual participation in play, games, sports and athletics. This accounts for our "stadium" participation in athletics and for its great hold on the American public. The fact that these innate urges or impulses can be indulged and gratified through actual participation in play, games, sports and particularly athletics,—mastery, or by representation,—letting the team represent us, makes informal physical education, especially athletics, all powerful. Moreover, we like to rationalize our interests and participation in sports on the basis that it is primarily a health interest. At any rate, the proponents of both formal physical education,—gymnastics, calisthenics, mass drills, and informal physical education,—play, games, sports, athletics, solicit interest in and support for these activities on the sincere pretensions that they, the promoters, are primarily or deeply interested in the health of the pupils.

A third and later health movement had its beginnings in the public schools when it was gradually realized that school children were the victims of many defects and other disorders with which physical education was unable to cope. Physical educators, coaches, play directors, and so on, generally speaking, were not trained to deal with these defects and other disorders of childhood. Moreover, owing to this potent innate urge or impulse for physical emulation, rivalry, competition and mastery, naturally, the teachers and supervisors of both informal and formal physical education tend to become interested in physical exercise activities as ends in themselves. At any rate, a third school health agency was established. The term *School Health Service* is utilized to designate this agency which is "manned" by physicians, dentists nurses, nutrition workers, mental hygienists, and so on.

The fourth school health interest or movement appeared on the horizon some 15 or 20 years ago. It began when the center of interest in public health work shifted from the environment and environmental control of communicable diseases to the human being. With the human as the center of interest, it was suddenly realized that progress in public health would be in direct ratio to the education of the public in matters pertaining to health promotion and to the prevention and control of communicable diseases. In other words, in this day and age, our first interest in public health must be *public health education*. Moreover, we now appreciate the fact that, heretofore, we have been establishing the machineries of public health work and laws and regulations thereunto far in advance of the masses' capacity to understand and utilize them. In the public schools, we have had to resort to several compulsory requirements in order to get the pupils to utilize the established health practices and machineries.

At any rate, we now realize that the most urgent interest and activity in public health, as well as in school health, is to teach people to appreciate, to want, to practice health and to know how to utilize intelligently

the various machineries of public and school health services. The fourth school health movement, therefore, is primarily concerned with effective *health teaching.*

Thus, these four movements and their resulting agencies, each in its time, more or less concerned with the health of school children, have come down to us from the past. Each of them was generated with a view of meeting an apparent need. The gymnast became the chief exponent of formal physical education. Coaches and play directors are the chief exponents of informal physical education. The school's health service must be staffed by physicians, dentists, nurses and so on. Health teaching is an interest which must be carried on by the entire teaching staff of the school under the supervision of one who is adequately trained in those sciences making up health work and in the principles and practices of sound teaching. Thus, it is seen that the training and interests of the functionaries in these four school health agencies are variant and dissimilar.

Formal and informal physical education have gotten together, more or less satisfactorily, in the public schools. At any rate, each of these agencies solicit support from the school's budget on the plea that it is fundamentally or deeply interested in the health of the school children of our land. Each has something to contribute. Moreover, physical education,—formal and informal, according to its stated objectives, has several important interests other than health to contribute to the welfare and education of the child.

Owing to this diversity of training and interests on the part of those who now function in the four agencies or interests which make up the physical welfare group of activities in the public school, it is difficult, indeed, for the members in one group, let us say physicians, to understand the "workings" of another group,—physical educators. Furthermore, what is the poor superintendent going to do after he has had conferences with proponents of each of these agencies? Certainly, he will be bewildered after each has laid down his claims on the school health education program. At any rate, it will be appreciated that when each of these interests and activities which claim to have something to contribute and do contribute something to the school's health education program, operates more or less independently of each other, a comprehensive and constructive program of health education cannot be forthcoming. It will be a piece-meal affair. Only some of the factors of health promotion, whether important or not important will be emphasized. Others will be woefully neglected. Much duplication and friction will be the inevitable result. What is several men's job is nobody's job; and so on.

No one will gainsay the statement *that a comprehensive and constructive school health education program can be forthcoming only when all the interests and activities, in our public schools, dealing directly with the*

health of pupils are correlated and organized into one administrative unit and directed by one who is adequately trained to do the job. The veracity of this statement is so evident that it may be accepted as an axiom.

A Unified Health Education Program

How can we go about the setting up of a single unit of health interests and activities for the public schools of our land? Naturally, of first importance is the training of directors along the lines already considered. The second concern is to blend together the four interests concerned with the physical welfare of school children in such a way that the direct health interests are merged into one effective whole and that the other important and sound interests and activities, particularly of physical education, formal and informal, are conserved. Assuredly, these non-direct health objectives of physical education can be conserved and exercised as effectively within an ideal health education unit as on the outside of this unit, providing the director has had some training in the objectives, principles and practices of physical education.

Figure II is a Plan of correlation and organization of the various school's health interests and activities into one administrative unit. It is presented also with a view of calling attention to the many things which must be duly considered in this program. Therefore, this plan not only suggests organization procedures but it attempts to convey the idea or conception of health education in the public schools. Of course, in local and small district schools, it cannot be anticipated that the many professions named under the caption of "Personnel" in each of the columns will be employed. In general, in the school units and in the small school districts, perhaps one individual will have to function to some extent, alone, in most, if not all of the school health work. *Let us accept this "Plan," then, for the idea or conception which it attempts to convey of a comprehensive and constructive school health education program rather than, primarily, as a plan of organization which, of course cannot be anticipated for the smaller school districts.* The idea or conception applies equally to the little red school house in a remote district and to a large metropolitan school district.

Let us now proceed with the examination of this plan in more or less detail.

1. At the head of the *Health Education in the Public Schools* for a municipality, a county or consolidated school district, a Director should be placed who is adequately trained in those sciences which acquaint one with the structure, functions and care of the human body as a whole, in those sciences and subjects which acquaint one with school administration in general, with the philosophy, sociology and psychology of education and principles of teaching, and with those subjects and sciences which acquaint one with the special interests and activities involved in health

HEALTH EDUCATION IN THE PUBLIC SCHOOLS
HEALTH INSTRUCTION
PHYSICAL WELFARE ACTIVITIES
HEALTH SERVICE
PHYSICAL EDUCATION
SANITATION
PERSONAL SERVICE
I Personnel of Teaching:
1 Director of Health Education
2 Class Room Teacher
3 Other Members of Health Education Staff, etc.
II Types of Instruction
1 Systematic course of instruction in the fundamentals of health promotion and disease prevention with reference to knowledge, attitudes, skills and habits.
2. Class-room Teacher in Health Teaching: Correlation of health teaching with other subjects in curriculum, such as: physiology, biology, social sciences, etc. Interesting Class-room Teacher in Health Teaching and Supervision.
3 Frequent inspections and drills in health habits, posture, height, weight, age, etc. Role of Class-room Teacher in these.
4 Adjuncts: Special lectures, plays, movies, posters, exhibits, etc. Outside health agencies.
I Personnel: Health Supervisor, Class-room Teacher, Janitor, etc. Activities. Sanitation
II School Buildings and Grounds:
Lighting
Ventilation
Heating
Space
Desks
Blackboards
Walls
Toilets
Swimming Pool
Grounds
III Home Sanitation
IV Community Interests:
Water Purification
Sewage Treatment
Refuse Disposal
Milk Inspection, Pasteurization
Food Inspection, Control
Insect Eradication.
I Personnel: Physicians, Dentists, School Nurses, Nutrition-Workers, Mental Hygienist, etc.
II Activities: Health Promotion.
1 Physical examinations, Medical aspects.
2 Bureau of Records.
3 Prevention & Correction of Defects:
Vision
Teeth
Hearing
Tonsils & Adenoids
Malnutrition
Orthopedic
Other Defects
4 Other Health Promotion Activities through body's relation to:
Sunshine
Safety First
Rest
Nutrition
Mental Hygiene Program, etc.
Posture, Good Habits
Narcotics, Stimulants, etc.
5 Care and treatment of ill pupils:
Home, School's Health Service.
Cooperation with family Physician;
Emergency Treatment.
6 Prevention and control of Communicable Diseases:
Quarantine, Isolation, Control of infection, Protective Inoculations, Vaccinations, Cooperation with the community's health department
I Personnel: Physical Directors, Physical Educators, Coaches, Play Supervisors, etc.
II Activities: Health Promotion.
1 Physical Examinations, Anthropometric charts, Physical capacity tests.
2. Bureau of Records.
3 Prevention & Correction of Defects:
Certain postural and functional defects, by physical exercise and special muscle training.
4 Other Health Promotion Activities through body's relation to:
Exercise
Play
Games
Recreation
etc.
5 Activity: The promotion of activity for zest, competition, and for its own sake: Emotional satisfaction, play, games, sport, athletics, gymnastics.
6 Greek Ideal: Art Aspects of Physical Education: Rhythmic and symmetrical development, beauty of body and carriage, posture, grace of movements.
7. Strength and Endurance.
8 Neuromuscular control: Muscular pliability: Precision: Dexterity.
9 Recreation.
10 Educational: mental, moral, social and character values: by: benefits of play, games, sports, athletics.
Prepared by J Sundwall
University of Michigan

Figure II

education. The Director, in every sense of the word, should be a genuine schoolman,—an assistant or deputy superintendent of schools in charge of health education.

2. Health Education involves two main lines of interest and activities. The one is *Health Instruction,* pedagogically and psychologically sound. The other is *Physical Welfare Activities* or machineries whereby the essen-

tial "doing" aspects of health education are put into effect. In the largest measure possible, the physical welfare activities should be regarded as the laboratory phases of health instruction. Hence these two main lines of health education should be tied up into one administrative unit.

3. Effective health teaching must include regular scheduled special instruction in the fundamentals of health promotion and disease prevention for the various grade levels which is pedagogically and psychologically sound with particular reference to knowledge of health matters, to the right attitude towards and appreciation for health, to the necessary activities or skills in maintaining health and in the utilization of health machineries and to the inculcation and practice of lasting health habits.

Of utmost importance is the contribution to health education which the class room teacher should make. She should be intelligently health conscious of her pupils throughout the day. Frequent inspections and drills are necessary. The essential health attitudes, skills and habits, in pupils, cannot be anticipated without this constant interest and coöperation of the class room teacher. She should be interested in normal growth and development; in posture, in the prevention, detection and correction of defects; and so on. In a large measure, this is what is meant by the "whole child" goes to school and the class room teacher must be a "whole child" pedagogue. Let us emphasize again that the class room teacher who becomes intelligently and actively interested in the health of her pupils will add much to the joy of her own living and to the effectiveness of her teaching. *Superintendents of schools should take note of this statement.*

At any rate, directors of health education must realize the supreme importance of sound health teaching and see to it that this is effectively going on in the schools under their health jurisdiction. Moreover, as has been emphasized, they must have training in education and in methods and materials in health teaching in order to see to it that sound special and correlated instruction in health is going on, that the class room teacher is meeting her obligations in this matter and that the health teaching is closely related to the physical welfare activities. Assuredly, this is a big job for the Director.

4. The Physical Welfare Activities as we now find them in the public schools fall into two main groups: *Health Service and Physical Education.* The former is "manned" by doctors, dentists and nurses, including, in some quarters, nutrition workers, psychologists—mental hygienists. The latter is "staffed" by individuals who are the products of training curricula in physical education and by play directors or coaches who are proficient in the teaching of and direction of sports and athletics. The interest and activities of the Health Service may be arranged into two general groups: *Sanitation and Personal Service.* The personnel and activities of *Sanitation* are put down in the Plan and need no further

comment. The interrelations of the Personal Service of the Health Service and Physical Education including both formal and informal, is difficult to understand on the part of school administrators, school physicians and others concerned. This interrelation merits considerable discussion at this point of our discussion but time precludes it. Let me recall your attention to the following salient points regarding physical education. It was the first health agency to appear in the public schools. It had its beginnings in those far off days when little was known regarding those sciences which make up modern medicine, hygiene and public health and when daily physical exercise was thought or felt to be all that was necessary in order to build up and maintain sound, vigorous, and harmoniously developed bodies. In the course of its history, its leading proponents, from time to time, have added objectives other than health to physical education. In recent years, its leaders have stressed certain educational values,—mental, moral and social, which are to be gained through participation in play, games, sports and athletics. So broad and all inclusive are the definitions of the aims and functions of physical education made by the outstanding leaders therein that one can no longer differentiate them from the definitions of aims and purposes of public school education in general.

In theory physical education puts down some praiseworthy objectives. In practice, generally speaking, it is largely concerned with the promotion of play, games, sports and athletics for their own sake and as ends in themselves. The reason for this has already been considered,—our innate urges or impulses for physical performance, emulation, competition, rivalry, and mastery with their accompanying potent emotional reactions. At any rate, it attracts to it many individuals as teachers and supervisors whose interests are largely confined to the promotion of play, games, sports and athletics for the sake of these and as ends in themselves. A genuine school health education program will always be interested in a certain amount of daily exercise as one of several approaches to or factors in building up and maintaining a sound, vigorous and harmoniously developed body. There is, therefore, a marked difference in the attitude relative to the functions of a physical education,—physical exercise, program between that of the teacher or supervisor of a play, games sports and athletic program, one the one hand, and of the physician or trained health worker, on the other. What the latter objects to and rightfully so, is for a more or less exclusive sports activity,—for its own sake and as an end itself, to mask under the caption of Health Education and then to have inadequately or untrained men at the helm of health education. This is frequently the case.

Of course the genuine health worker has no objection to a play, games, sports and athletic program for its own sake and as an end in itself providing it is physiologically sound and not hurtful to the participants.

If schoolmen believe that a program of this type should be maintained in the schools in order to satisfy our innate impulses and urges along the lines of physical competition and mastery, very well and good. The proponents of play, games, sports and athletic programs in the public schools have always maintained that there is an important educational value,—mental, moral, social, character building, and so on, which is peculiar to this program and which cannot be reached in other school activities. If schoolmen hold that this educational value is of sufficient importance to justify this program as an independent activity in the school, then, no objections on the part of genuine health educators should be voiced against it.

The problem is simply this: Is health the primary objective in physical education? If so, it should be combined with the health education program under the direction of one who is adequately trained to take care of the various health needs of the child. Of course the other non-health values or objectives of physical education can be recognized and tilled within this combination.

On the other hand, if the outstanding functions of physical education are to promote a gymnastics, play, game, sports, athletic program for its own sake and as an end in itself with a view of stimulating and teaching children to play and to become proficient therein, having in mind the recreational, the so-called "carry over" and educational values, then physical education may well be organized into a separate agency in the schools. In which event, the relationship of it to a genuine health education program would be about the same as that of vocational training, industrial training, agriculture and other interests and activities in the school which utilize the big muscles.

On the whole, schoolmen and the public regard physical education and health as synonymous. I do not believe that the schools of our land will support physical education and health education as two separate and independent agencies. However, it is up to schoolmen to decide. The time is here when they should make some clear cut pronouncements relative to this matter.

In making these comments, I am not unmindful of the many teachers and supervisors of physical education who have made and are making every intelligent effort to acquaint themselves with the scope and program of the modern child health conservation movement through diligent study of the various subjects and sciences which make up the principles and practices of public and school health, including the teaching of health. Moreover, in many quarters of our land, physical education is establishing a genuine leadership in school health education. There is no reason in the world why physical education should not take over health education providing it is willing to pay the price of that training, already considered in this discussion which is essential in order to carry on a comprehensve and constructive school health education program.

I have been constrained to devote, perhaps, too much time to this consideration of the difficulties encountered in attempting to fuse physical education and health education. I felt, however, that the school physician who contemplates the direction of a school health education program as a career should appreciate the rôle of physical education. As has already been stated, it is difficult for the trained personnel of the Personal Service of the Health Service,—physicians, dentists, nurses, etc., to understand Physical Education and vice versa. Generally speaking, school physicians, unless they have had some training in the theory and practice of physical education, see little if anything in it which is not directly related to health. On many occasions, in discussing physical education with physicians I have had to point out those objectives in physical education which are not directly related to health. These are named in the Plan Figure II to which we will now return.

In the column under *Personal Service of the Health Service,* the several interests and activities of this service are put down. Likewise, interests and activities of physical education are put down under *Physical Education.* These two columns are parallel to each other in part and then diverge. Under II—Activities, in each column, the first four items in each column are concerned with the machineries of health promotion and therefore should be closely correlated in order to secure a well balanced health program. Of course, criticisms will be made relative to the allotment of some of these items. However, this is not important. The important thing is to see to it that all the various factors which make up a balanced program of health education are adequately cared for whether these are done by the personal service of the health service or by physical education. The divergent parts of these columns include the activities which, more or less, belong to each,—Personal Service and Physical Education. Items 5—Care and treatment of ill pupils. and 6—Prevention and control of communicable diseases, under Personal Service, are medical problems. In going over to the divergent portion of the Physical Education column, we find items 5—Activity, 6—Greek Ideal: Art Aspects of Physical Education, 7—Strength and Endurance, 8—Neuromuscular control, 9—Recreation, 10—Educational. These are important objectives of physical education which, on the whole are not directly concerned with health and therefore of not much concern to the average school physician. They are much better cared for by physical education.

The fact that the interests and activities of physical education and the health service diverge at a certain point does not justify separate and independent organizations for each. The important thing is for the school physician who anticipates school health education in its totality as a career to understand, appreciate and provide for these objectives in physical education which are not directly concerned with health but which add so much to the welfare of the child. I have, therefore, included a study of physical education,—its history, philosophy, objectives, and func-

tions as a part of the special training of the school physician going into health education work.

Conclusions

I have greeted you today as the American Association of School Physicians. If I have succeeded in "putting over" the idea or conception of a comprehensive and constructive program of Health Education in the Public Schools with its many important details, then, I believe you will agree with me that, in general, the average school physician is playing only a small part in it. Looking at the Plan—Figure II once more, about all he does is to function in the Personal Division of the Health Service. Under II—Activities of this column, the school physician takes care of: 1, Physical Examinations; 2, Bureau of Records; and 3, Prevention and Correction of Defects in part. Generally he is concerned with 3 only in so far as the detection and diagnosis of defects are concerned. He leaves the arduous and difficult task of correction of defects to the follow up work of the school nurse and to the family physician. He doesn't worry much if this work is not done. The school physician may or may not do anything in 4, Other Health Promotion Activities. He may render some service,—emergency, in 5, Care and Treatment of Ill Pupils, and likewise in 6, Prevention and Control of Communicable Diseases. So far as the many other important interests and activities as itemized in the Plan which make up a genuine school health education program are concerned, the average school physician has little if anything to contribute. At any rate, our Plan shows that his rôle in an ideal school health program is limited wholly or in part to only several items out of many important ones which make up a worth while school health program.

My plea is that school physicians become interested in and prepare themselves to take over and direct intelligently and effectively a comprehensive and constructive Health Education Program in the Public Schools.

He has a great advantage over others who aspire to become directors of school health education in that his basic scientific training for the job is, generally superior. With an additional year of study or more, along the lines indicated in Figure I, the school physician should become an ideal Director of a School Health Education program for the public schools of a municipality, a county or a district. He will be happy and contented in this work. It offers him unlimited opportunities for study, research and investigation. Schoolmen need and want his services in this matter. Assuredly physicians trained to direct health education programs in our public schools will contribute, immeasurably, to the welfare of the children of our land.

May I venture the hope that in some near future date, I shall be invited to address you again and that, then, I shall greet you as the American Association of Director of School Health Education.

Malnutrition in Children

A Basis for Selection of Malnourished Children with Reference to Placement in Nutrition Classes

HOWARD R. COODER, M.D.

Nutrition Consultant, Los Angeles City Schools

Selection of children is made with less reference to weight than to other conditions as follows:

A—General Attitude.

Children who are habitually tired, listless, inefficient through apparent poor care.

B—Expression.

Tired eyes, dark circles, sagging facial muscles, apathy and lack of interest. There is also a type of over-active child, who has some of these signs combined with a bright forced interest.

C—Color.

We distinguish between amount of pigment in the skin and amount of blood circulation, the latter being the important point. Skin blood volume is usually reduced in true nutrition cases—the results are pallor in light children and sallowness in dark ones, showing special circumolar zone, bluish areas beneath lower eyelids, pinched faces, faded lips, and faded conjuctivae, etc.

D—Skin.

The quality of this depends upon the amount of fat beneath it. In nutrition cases it is commonly dry, thin, crepe like, exhibits veins and varies from white to muddy.

E—Panniculus.

Inadequate fat layer is the most consistent finding in nutrition cases. Bony prominences show, the skin is thin and lies directly on the muscles, producing the characteristic hard, wiry limbs of over-active, thin children. The nutritional appearance of children depends more directly upon this one item than any other.

F—Tissue Tone.

This is a part of all tissues, but particularly of muscles and ligaments. In children who have an endowment of familial relaxed habitus with proptosis, tone is always poor and is difficult to improve. In children whose tone is poor on account of poor hygiene or disease, it can be brought up to normal.

G—Posture and Gait.

These depend largely upon the previous condition and are of great value in diagnosing malnutrition.

H—General Body Size, Growth and Dimensions.

Small, flat, thin and obviously poorly developed children are always under suspicion as malnutritional cases and need particular supervision.

Feeding School Children

MARY G. MCCORMICK, A.M.

State Supervisor of Nutrition, Albany, N. Y

School feeding in its various phases has become an established practice in our schools. Wherever the children can not go home for the noon meal a hot lunch should be available at school. The complexity of this lunch ranges from the extremely simple one served in the small rural school (usually one hot food) to the lunches found in the large high school cafeterias which rival the public restaurants in the amount and variety of food that is served. Again the midmorning milk feeding for undernourished children and other children whose appetite is so poor in the morning that they eat little or no breakfast has been extensively organized in our schools. School parties, although irregular in occurrence, constitute another form of school feeding.

Undoubtedly the one outstanding food in all school feeding is milk and rightly so for milk occupies the supreme place among all foods. Its ideal proteins, its emulsified fat, its carbohydrates (lactose) which does not ferment so readily as cane sugar, its rich and varied assortment of minerals, especially calcium and phosphorous and its content of vitamins A, B and even D give milk a unique value. The amount of vitamin C in milk varies with the cow's food, but even at best milk is not a rich source of vitamin C.

In selecting a milk supply for the schools, the superintendent should ask the advice of the public health authorities. Milk, while a good food for humans is also a good culture medium for many bacteria and every precaution should be taken to provide a safe milk. Nutrition experts and public health officials are agreed that for school children this should be a good grade of pasteurized milk. While it is true that the process of pasteurization does destroy a greater or smaller amount of vitamin C, it must also be remembered that even raw milk is not especially rich in this vitamin and that for the child of school age many other foods rich in vitamin C may be included in the diet. The school authorities should protect the children from the danger of milk-borne diseases and should protect themselves from the charge of providing unsafe milk by insisting that pasteurized milk be used in the schools. The use of pasteurized milk has become so widespread that it is available in almost every community. In small towns having no supply of pasteurized milk, the education authorities should confer with the health officer regarding the rating given to the various local milk dealers and the advisability of serving raw milk in the schools. From the bacteria standpoint, the only safe milk, in general, is a properly pasteurized milk.

AN OPPORTUNITY TO EARN $15,000

Mead Johnson & Company announces an award of $15,000 to be given to the investigator or group of investigators producing the most conclusive research on the vitamin A requirements of human beings.

Requirements—Candidates for the award must be physicians or biochemists, residents of the United States or Canada who are not in the employ of any commercial house. Manuscripts must be accepted for publication before December 31, 1934, by a recognized scientific journal. Investigations shall be essentially clinical in nature, although animal experimentation may be employed secondarily.

Committee on Award—The Committee on Award will consist of eminent authorities who are not connected with Mead Johnson & Company, the names of whom will be announced later.

Source of Supplies—There are no restrictions regarding the source of vitamin A employed in these investigations.

For other details of the Mead Johnson Vitamin A Clinical Research Award, see special announcement, pages 14 and 15, in *Journal of the A. M. A.*, January 30, 1932.

PROGRESSIVE EDUCATION

Ten planks for a platform of progressive educators proposed by Stanwood Cobb in "The New Leaven."

(1) Health must come first.

(2) Learning comes from doing.

(3) The classroom should be freed from unnatural restraint and exterior compulsions transformed into interior compulsions.

(4) Adapt education to the differences of the individual child.

(5) Group-consciousness and social-mindedness should be developed in children; social adjustment and character training are as important as academic progress.

(6) The child should have abundant opportunity for creative expression.

(7) Enable the child to acquire thorough control of the tools of learning rather than merely to acquire facts.

(8) Introduce into academic work the method of creative expression, so that education shall be joyous.

(9) Abolish the tyranny of marks and examinations.

(10) The teacher should be a leader and guide, not a task master.

A WET PARTY

Within the hearing of Charles, aged four, his mother mentioned to his father that she had been invited to a shower.

"Oh, mother," exclaimed the child, "I can't go with you because my bathing suit is too little."—*Exchange.*

Messages from the Field

DR. ADA E. SCHWEITZER

Director of the Division of Infant and Child Hygiene of the Indiana State Board of Health

At present we are conducting health education programs in the schools as follows:

Child Health Conferences where babies and preschool children are examined are usually held at school buildings and very often retarded children are referred to us for examinations—both physical and mental. As the first grade in school is usually included, we have that contact with the school itself. Parents are asked to be present and are advised concerning their children. Examinations are made without clothing.

Classes for high school boys and girls on the growth and development and care of the child are given in a series in all high schools in counties where we work. A doctor and nurse and a young man who operates motion picture films are the instructors.

Motion picture films illustrating the care of the child, oral hygiene, posture, prevention of diphtheria, vision conservation, etc., are used in a series of illustrated talks given to the entire school body who come to the assembly in age groups to hear the talks and see the pictures. Most schools find these a great inspiration and assistance in their health programs. Usually all schools in a county are visited on a prearranged schedule.

Recently we have held in two or three counties displays of health exhibits arranged on similar schedules. These are very popular.

DENTAL HYGIENE IN THE GARY SCHOOLS

The public schools of Gary through W. A. Wirt, Superintendent, and Dr. O. B. Nesbit, Director of Medical Inspection, have issued an annual report showing the dental work done in the schools of that city during the year 1930. The schools employ two dentists and three dental hygienists throughout the school year, with necessary clerical service for keeping records. Each pupil in the Gary schools from the kindergarten department to the 5-A elementary grade pays $1.00 per year which entitles the pupil to an examination by the school dentist and prophylaxis by the dental hygienist. Pupils whose parents send a signed request are also entitled to further dental service.

The report shows that 8,760 parents requested school dental service. The total number of pupils given dental examinations for the first time was 3,586, while 7,373 pupils were given a re-examination. 7,886 initial dental treatments were given with 1,246 subsequent treatments. The report is extremely interesting as showing both the need for protective dental service and the efficient plan adopted by the Gary school for meeting this need.—*Monthly Bulletin,* Indiana State Board of Health.

KALAMAZOO, MICHIGAN, SCHOOL PHYSICIANS' BULLETIN

Our most outstanding piece of work last year was the examining at the beginning of each semester of junior and senior high school students—7Bs, 9Bs, and 11Bs and new pupils. This was made possible by the assistance of local physicians and the coöperation of the physical education department. Two thousand three hundred fifty-seven pupils were examined. We followed the high school examination by examination of the little people entering kindergarten and first grade. One thousand twenty-three of these children were examined. This clinic was started in 1923. Mothers are invited to attend. We usually have about fifty per cent of them present. Parent-teacher Association workers assisted us in these clinics.

We have had a part-time dentist since 1915, a dental hygienist since 1919.

Classes for the correction of speech defects have been organized since 1918. Over nine hundred children have been helped.

A special group of the hard of hearing was started in 1927 and nearly forty children have been taught lip reading. Some of these cases totally deaf have been most interesting.

BOSTON TO CELEBRATE TWENTY-FIFTH ANNIVERSARY OF APPOINTMENT OF SCHOOL NURSES

Nurses in the Boston Public Schools will complete a quarter of a century of service at the close of the present school year, June 1932.

From a group of one supervising nurse and seventeen assistants appointed in September 1907, the department at present numbers one supervising nurse, four assistant supervising nurses, and sixty-one school nurses.

These nurses are assigned to elementary and intermediate schools only. With an enrollment of one hundred and two thousand pupils in these schools, nurses have eighteen hundred pupils or less under their supervision.

This makes it possible for daily visitations of schools and almost immediate follow-up work through home visitations of excluded pupils or pupils absent on account of illness, thereby reducing to a minimum unnecessary absenteeism on account of illness.

Plans are in preparation for an official celebration of the twenty-fifth anniversary of the appointment of school nurses in the Boston Public Schools.

HELEN F. MCCAFFREY, R.N.,
Supervising Nurse

The Eleventh Annual Convention of the International Society for Crippled Children will be held at Rochester, N. Y., April 17-20, 1932. The program contains much of interest in dealing with the mental and physical training of crippled children.

DR. C. C. DAUER OF SALEM, OREGON, SENDS THE FOLLOWING INTERESTING ITEM TO THE BULLETIN

Oribasius (325-403 A. D.) had some very sound ideas regarding the education and training of children, which are as follows:

"The directions for the education of children by Oribasius are refreshingly modern in spirit. In the seventh or eighth year boys and girls should be confined to genial, humane tutors, whose encouraging praise and pleasant flow of language will inspire them to excel. A generous diet, too, must not be forgotten (modern school lunches for children). Bitterly censorious teachers who obstinately uphold their authority everywhere, will only make slavish, cringing, fearful pupils, disgusting them with the objects of instruction. How can it be otherwise, he says, when the child, which loses its presence of mind when beaten, is yet required to learn and memorize what it learns? Children who are tormented with instruction all day, and not allowed to play, are in exactly the same class with servants, who break down from unintermitting labor without recreation. At twelve, languages and the mathematics should be begun, with bodily exercise under experienced instructors, who know the right measure and the right time for eating, gymnastics, bathing, and sleep. Most people will engage thoughtful or experienced men to look after their stables, at a liberal salary, while they entrust their children to inexperienced teachers, usually ignorant persons who have already failed in life."

This is taken from the first volume of Abt's Pediatrics, page 49, written by Fielding H. Garrison.

The following health education note is submitted for THE BULLETIN:

In the course of the last forty years, the general health rate in New York State has been cut from 21.4 per thousand population in 1890 to 11.7 in 1930. This reduction is due almost entirely to the decrease in mortality for ages below 45. There has been little improvement in middle life, and for those over 60 there has been a slight increase.

In other words, the improvement is due to the control of communicable disease. Further advancement in postponing deaths must come from control of the diseases of degeneration. This in turn rests upon health training and instruction during the school years of life when habits of life are being formed.

C. H. KEENE, M.D.

MORE EVIDENCE OF THE VALUE OF COD LIVER OIL

In Buffalo, N. Y., the school authorities are enthusiastic over the results obtained by giving cod liver oil to pupils.

The practice was begun last year and is being continued this semester.

The tonic is given to every child in the kindergarten and first grade and to those in the second and third grades who are recommended for it by the school physicians.

Though children have the right to refuse it, only two have done so.

This health measure, so rapidly growing in favor, has reduced the amount of sickness in the grades and materially increased the school attendance.

The Evaluation of a Positive Tuberculin Test

GEORGE H. HOXIE, M.D.
Kansas City, Missouri

In the June, 1931, issue of THE SCHOOL PHYSICIANS' BULLETIN, Dr. Joyce I. Hartman reports from Cleveland on the percentage of positive skin tests in the open air rooms. In this report one sentence has arrested my attention. It is this: "At the present time tests are being made in the regular rooms to ascertain the proper location of open air rooms and to replace the sixty-five per cent of negative reactors now in open air rooms."

I wonder if the experience of the Cleveland schools is so definite that they feel that the intradermal tests can be relied upon as 100% efficient. I wonder, also, if only those who show positive intradermal tests should be the ones admitted to the open air rooms.

Our experience would indicate that children living in intimate contact with open cases of tuberculosis need constant watching and the only practicable way we have found to keep up such watchfulness is by including them in the open air rooms. We feel, therefore, that the history of intimate contact with an open case of tuberculosis is sufficient cause for admission to the open air rooms.

Furthermore, it seems to me as yet unproven that the intradermal has one significance and only one. The recent report in the Archives of Internal Medicine from Johannes Heimbeck of Oslo, Norway, would indicate that the von Pirquet test was being used there as the evidence of immunity rather than as evidence of sensitization. If that is a well founded belief, then the children who need the protection of the open air room most would be the ones missed if we depend entirely upon the skin tests

Let me quote Dr. Heimbeck's conclusions verbatim. They will give us at least some food for thought.

"Tuberculous infection occurs in the minority of persons during childhood (the first period of infection) and in the majority during adult life (the second period of infection).

"Tuberculous diseases are generally the direct result of a newly acquired infection. An infection that does not presently reveal its malignancy with symptoms of disease but merely causes allergy will seldom give rise to disease processes later; on the contrary, it protects the organism against any new exogenous infection. Pirquet's tuberculin reaction in a healthy person is therefore to be regarded as a sign of immunity. Subcutaneous vaccination with B C G is harmless and, as a rule, produces immunity, often associated with allergy. The immunity is equivalent to a benign tuberculous infection, but is probably not permanent. As within a certain time, perhaps from one to four years after the vaccination, it seems to be strengthened and stabilized by any later tuberculous infection, those vaccinated possibly ought to be infected with tubercle bacilli or revaccinated with B C G the

first year or two after vaccination. In persons living in tuberculous surroundings and giving a negative Pirquet reaction, subcutaneous vaccination with B C G is the sovereign means of preventing tuberculosis."

I would like to get the reaction of school physicians on these points.

LATENT TUBERCULOSIS IN INDIAN CHILDREN

The prevalence of latent tuberculosis in Indian children was well illustrated at a clinic held recently at the Cattaraugus Indian Reservation in Erie county by the Division of Tuberculosis of the State Department of Health. Among those examined and x-rayed were 26 children, 22 of whom had previously had an intradermal tuberculin test. Twenty-one reacted positively and one gave no reaction. Of the 21 positive reactors, x-ray evidence in 7 revealed childhood type of tuberculosis, at least 2 of whom presented symptoms of clinical activity. It is interesting also that a chest x-ray of the one child, who did not react to tuberculin, revealed the heart situated on the right side of the chest.—*Health News,* May 18, 1931.

SOAP AND PAPER TOWELS IN SCHOOLS

The Yonkers (N. Y.) *Statesman* in a recent issue, strongly urges the Board of Estimate and Apportionment to approve the item recommended by the Board of Education to provide soap and paper towels for the public schools of the city.

In its editorial it says:

Here is a small matter of great consequence which Mayor Loehr and his cabinet can well afford not to erase in checking over finally the School Board's requisitions for the year.

Of what worth is the whole program of health education, stressed so thoroughly in the schools, if the simple elements of cleanliness are to be shelved in the name of economy?

Few will fail to recall the protests in New York City last year over the fact that the entire health education program was vitiated because children had no means for washing the dust and grime of the class room from their hands.

"Hand-washing facilities," ran a recommendation of the Board of Superintendents, which urged soap and paper towels for all schools, "are as essential and justifiable in any school as are books, paper and pencils."

White Plains not so long ago won some unenviable publicity when an inspection committee found these facilities lacking.

Our public school pupils deserve better treatment from their city in this inexpensive field than they have received. It ill becomes the School Board or the administration that it should be necessary to beg private funds to let our school boys and girls wash their hands and dry them.

Let the Board of Estimate give its approbation to this particular request, to conserve the self-respect of the city in its relations with the coming generation.